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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,553	01/23/2004	Luis Felipe Cabrera	13768.473	7511

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EXAMINER

DAILEY, THOMAS J

ART UNIT	PAPER NUMBER
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2152

MAIL DATE	DELIVERY MODE
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09/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/763,553

Applicant(s)

CABRERA ET AL.

Examiner

Thomas J. Dailey

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/23/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23 are pending in this application.

Claim Objections

2. Claims 2-9, 11-21, and 23, are dependent claims which recite, "A method or computer program product in accordance with Claim ..." They should recite, "*The* method or computer program product..." Appropriate correction is required.
3. Claims 4 and 16 are objected to due to the following typographical error: "the instance governing the state information *in* still in recovery mode." (claim 4, lines 6-7; claim 16, lines 8-9). The claims should recite, "is still in recovery mode." Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 10-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As provided on pages 9-10, paragraph [0025] of the specification, a computer-readable medium includes communications media. Claims drawn to components involving signals encoded with functional descriptive material do not fall within any of the categories of

statutory subject matter as set forth in 35 U.S.C. 101, and are therefore, ineligible for protection.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. As to claims 1, 10, and 22, they recite, "system memory that **may be** more directly accessed by the one or more processors" (e.g. claim 1, line 3, emphasis added). Use of the term "may be" renders the claim indefinite, as "may be" is by definition indefinite.
9. As to claim 22, it recites, "a step for recovering while preserving such messages." "such messages" lacks antecedent basis, all that is mentioned previously is a received message.
10. Any claims not previously addressed are rejected due to their dependence on the previously rejected claims.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-3, 10-15, and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Fuchs et al (US Pat. 5,440,726), hereafter "Fuchs."

13. As to claim 1, Fuchs discloses a computing system that includes one or more processors, persistent media configured to store information that persists through power loss of the computing system, and system memory that may be more directly accessed by the one or more processors (column 6, lines 49-56), the computing system operable in both normal mode and recovery mode, a method for the computing system operating in recovery mode while ensuring reliable message processing for messages received during the recovery mode operations (column 2, lines 38-49), the method comprising the following:

an act of receiving a message corresponding to a particular message transaction (column 15, lines 40-49);

upon receiving the message, an act of determining from state information corresponding to the particular message transaction that an instance governing the particular message transaction is in recovery mode (column 15, lines 46-53,

data is received and inherently it is determined what mode the system is operating in, either normal or recovery);

an act of determining that the received message is a normal message suitable for normal mode operations (column 15, lines 46-49);

an act of placing the message into a persistent queue for later processing (column 15, lines 45-53, messages are placed in the log and are processed during the recovery phase); and

an act of completing recovery mode operation (column 2, lines 53-64).

14. As to claim 10, it is rejected by the same rationale set forth in claim 1's rejection.

15. As to claim 22, Fuchs discloses a computing system that includes one or more processors, persistent media configured to store information that persists through power loss of the computing system, and system memory that may be more directly accessed by the one or more processors (column 6, lines 49-56), the computing system operable in both normal mode and recovery mode, a method for the computing system operating in recovery mode while ensuring reliable message processing for messages received during the recovery mode operations (column 2, lines 38-49), the method comprising the following:

an act of receiving a message corresponding to a particular message transaction (column 15, lines 40-49);

upon receiving the message, an act of determining from state information corresponding to the particular message transaction that an instance governing the particular message transaction is in recovery mode (column 15, lines 46-53, data is received and inherently it is determined what mode the system is operating in, either normal or recovery); and

a step for recovering while preserving such messages (column 15, lines 50-53).

16. As to claims 2 and 14, Fuchs discloses an act of loading the state information from persistent media into system memory in response to the act of receiving the message (column 15, lines 45-53, as two distinct modes of operation are disclosed there is inherently a loading of state information with regard to the current message transaction).

17. As to claim 3 and 15, Fuchs discloses an act of saving the state information into persistent media after the act of placing the message into the persistent queue (column 15, lines 45-53, as two distinct modes of operation are disclosed there is inherently a saving of state information with regard to the current message transaction).

18. As to claim 11, Fuchs discloses the one or more computer-readable media comprise physical memory media (column 6, lines 10-16).

19. As to claim 12, Fuchs discloses the physical memory media comprises persistent media (column 6, lines 10-16, non-volatile reads on persistent).

20. As to claim 13, Fuchs discloses the physical memory media comprises system memory (column 6, lines 10-16).

21. As to claim 23, Fuchs discloses:

an act of determining that the received message is a normal message suitable for normal mode operations (column 15, lines 46-53);

an act of placing the message into a persistent queue for later processing (column 15, lines 46-49); and

an act of completing recovery mode operation (column 15, lines 53-60).

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 4-8 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs et al (US Pat. 5,440,726), hereafter "Fuchs," in further in view of Kantor et al (US Pub. No. 2003/0126229), hereafter "Kantor."

24. As to claims 4 and 16, Fuchs discloses the invention substantially with regard to the parent claims 1 and 10, but does not explicitly disclose determining a received message was a recovery message, and processing the recovery message while in recovery mode. Rather, Fuchs discloses recovery messages and a recovery mode but is silent on specific details as to how received messages are handled during recovery mode.

However, Kantor discloses performing a recovery operation in a transaction processing system (Abstract, lines 1-3) that includes determining that a received message is a recovery message, and processing the recovery message while in recovery mode (Abstract, lines 5-12).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Fuchs and Kantor thereby using a known technique for processing recovery messages in order to achieve the predictable result of enabling more efficient handling of recovery messages.

25. As to claims 5 and 17, Fuchs and Kantor disclose the invention substantially with regard to the parent claims 4 and 16, and further disclose an act of loading the state information from persistent media into system memory in response to the act of receiving the second message (Fuchs, column 46-53, multiple messages are received per transaction and inherently the mode of operation is loaded).

26. As to claims 6 and 18, Fuchs and Kantor disclose the invention substantially with regard to the parent claims 4 and 16, and further disclose an act of saving the state information into persistent media after the act of processing the recovery message (Fuchs, column 15, lines 45-53, as two distinct modes of operation are disclosed there is inherently a saving of state information with regard to the current message transaction insomuch as it is required in order to handle the next message).

27. As to claims 7 and 19, Fuchs and Kantor disclose the invention substantially with regard to the parent claims 4 and 16, and further disclose an act of determining that the processing of the recovery message completes recovery of the instance governing the particular message transaction (Fuchs, column 15, lines 50-60).

28. As to claims 8 and 20, Fuchs and Kantor disclose the invention substantially with regard to the parent claims 7 and 19, and further disclose an act of setting the state information to reflect normal operation mode, wherein the act of saving the

state information into persistent media after the act of processing the recovery message occurs after the act of setting the state information to reflect normal operation mode (Fuchs, column 15, lines 45-53, as two distinct modes of operation are disclosed there is inherently a saving of state information with regard to the current message transaction insomuch as it is required in order to handle the next message).

29. Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs and Kantor in further view of what was well known and expected by one of ordinary skill in the art at the time of the invention.

30. As to claims 9 and 21, Fuchs and Kantor disclose the invention substantially with regard to the parent claims 8 and 20, but do not explicitly disclose an act of processing one or more normal messages in the queue in response to the act of determining that the processing of the recovery message completes recovery of the instance governing the particular message transaction. Rather Fuchs discloses the recovery mode reads recovery operations from the log file and not from the regular input channel (column 15, lines 50-53). Fuchs makes no explicit mention as to what occurs to the messages at the input channel.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a known and popular data structure (a queue) in

order to store any input data from the regular input channel until that data can be processed (i.e. after Fuchs is out of recovery mode as explicitly mentioned) rather than just dropping any received data. Therefore, Official Notice is taken that using a known practice (queues to store data for later processing) in Fuchs and Kantor system would have been obvious to one of ordinary skill in the art at the time of the invention in order to prevent unnecessary data loss.

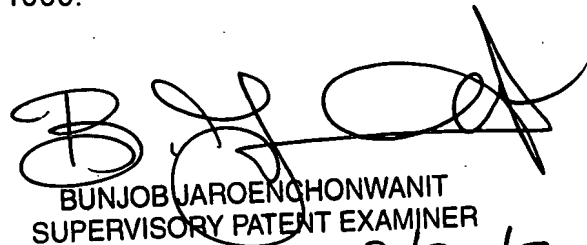
Conclusion

31. For additional prior art made of record and not relied upon and considered pertinent to applicant's disclosure see attached Notice of References Cited, Form PTO-892.
32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.
33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2152

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TJD
8/28/2007


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8/30/7